

INTERNATIONAL SEARCH REPORT

Rec'd PCT/PTO

03 DEC 2004

International Application No.

PCT/EP 03/06911

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 B01D29/11 B01D29/21

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 230 760 A (TANABE KAZUSHIGE) 27 July 1993 (1993-07-27) the whole document	1
A	US 4 536 291 A (PRADEL GUENTER ET AL) 20 August 1985 (1985-08-20) the whole document	1
A	EP 0 062 867 A (PALL CORP) 20 October 1982 (1982-10-20) abstract page 4, line 17-21 page 10 page 18, line 9 - line 14 figure 3	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

12 September 2003

Date of mailing of the international search report

19/09/2003

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DE 199 19 289 A (MAHLE FILTERSYSTEME GMBH) 2 November 2000 (2000-11-02) the whole document -----	1
A	GB 1 327 382 A (FRAM EUROP) 22 August 1973 (1973-08-22) page 2, column 2; figures -----	1

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/06911

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5230760	A	27-07-1993	JP 3144858 B2 JP 5154361 A	12-03-2001 22-06-1993
US 4536291	A	20-08-1985	DE 3318940 A1 FR 2546415 A1 GB 2140317 A , B JP 59230612 A	29-11-1984 30-11-1984 28-11-1984 25-12-1984
EP 0062867	A	20-10-1982	AT 30299 T AU 8254782 A BR 8202104 A CA 1180287 A1 DE 3277497 D1 DK 165482 A , B, EP 0062867 A2 ES 8304442 A1 FI 821289 A JP 1592499 C JP 2018125 B JP 58014919 A	15-11-1987 21-10-1982 22-03-1983 01-01-1985 26-11-1987 15-10-1982 20-10-1982 01-06-1983 15-10-1982 14-12-1990 24-04-1990 28-01-1983
DE 19919289	A	02-11-2000	DE 19919289 A1	02-11-2000
GB 1327382	A	22-08-1973	BE 757121 A1 DE 2048891 A1 FR 2065034 A5 ZA 7006807 A	16-03-1971 22-04-1971 23-07-1971 29-09-1971